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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,564	03/02/2004	Jun-Sang Park	678-1178	3094

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EXAMINER

YOUNG, JANELLE N

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/791,564

Applicant(s)

PARK ET AL.

Examiner

Janelle N. Young

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 & 8 have been considered but are moot in view of the new ground(s) of rejection. The amended claims and drawing add new matter, because there is no mention of "an optical axis [or character reference A3] of the camera module is parallel with the first hinge axis".

Isashi teaches a portable information processing apparatus; which reads on claimed portable terminal or PDA, (Abstract of Isashi) wherein the lens of the photographic optical system and a lens barrier for selectively covering the lens are arranged at a longitudinal direction; which reads on claimed camera module comprises a camera lens at an end of the camera module and a viewfinder at another end of the camera module, wherein an optical axis of the camera module is parallel, wherein an optical axis of the camera module is parallel (Fig. 7A & 7B; Col. 15, line 36-Col. 16, line 65; and Col. 34, lines 22-28 of Isashi)

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "**A3**". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid

abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no mention of "an optical axis [or character reference A3] of the camera module is parallel with the first hinge axis".

Response to Amendment

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 7-11, 13, 15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kfoury (US Patent 6549789) and further in view of Saburi et al. (European Patent Publication 1096771 A1) and further in view of Isashi (US Patent 5719799).

As for claims 1 and 8, Saburi et al. teaches a portable terminal (of Saburi et al.) comprising:

a first housing; a hinge housing installed at an end of the first housing, for defining a first hinge axis along a width direction of the first housing and a second hinge axis perpendicular to the first hinge axis; and a second housing connected to the first housing by the hinge housing, for rotating about the first hinge axis to an opened state or a closed state with respect to the first housing (Abstract; Col. 4, line 66-Col. 5, line 45; Col. 7, lines 14-65 of Kfoury).

What Kfoury does not explicitly teach is detachable sub-housing on a portable terminal.

However Saburi et al. teaches a portable terminal of comprising: a sub-housing mounted to an outer surface of the first housing and having a camera module along the first hinge axis and a detachable sub-housing mounted to an outer surface of the first housing and having a camera module, wherein an optical axis of the camera module is parallel with the first hinge axis (Fig. 6 A & B; Col. 3, lines 36-44; and Col. 6, line 34-Col. 7, line 7 Saburi et al.)

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a detachable imaging unit to a mobile communication terminal, as taught by Saburi et al., in the portable electronic device of Kfoury, because Kfoury already teaches an adaptable and/or detachable user interface (Col. 7, lines 14-65 of Kfoury).

What Kfoury and Saburi et al. do not explicitly teach is a portable terminal, further comprising a camera lens at an end of the camera module and a viewfinder at another end of the camera module, wherein an optical axis of the camera module is parallel.

However Isashi teaches a portable information processing apparatus; which reads on claimed portable terminal or PDA, wherein the lens of the photographic optical system and a lens barrier for selectively covering the lens are arranged at a longitudinal direction; which reads on claimed camera module comprises a camera lens at an end of the camera module and a viewfinder at another end of the camera module, wherein an optical axis of the camera module is parallel (Fig. 7A & 7B; Col. 15, line 36-Col. 16, line 65; and Col. 34, lines 22-28 of Isashi)

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a longitudinal photographic optical system, as taught by Isashi, in the detachable imaging unit of a mobile communication terminal of Saburi et al. and the portable electronic device of Kfoury, because Kfoury already discusses detachable user interfaces applied to pagers, electronic organizers and computers (Col. 7, line 14-Col. 8, line 11 of Kfoury). In addition, Saburi et al. discusses a camera unit that can be rotated changing its capturing direction (Col. 6, lines 46-54 of Saburi et al.).

The motivation of this combination would be the effect of the manufacturing making it easier to market the device with in a plurality of combinations. For instance one device can be manufactured and then simply packaged with a detachable user interface that is directed to a certain consumer, as taught by Kfoury in Col. 7, lines 14-65, because as demand for multiple user interfaces allows for multiple modes of operation with a single handheld device. The camera module's parallel optical axis and the a longitudinal photographic optical system incorporated in the portable electronic device combination would the user an easier arrangement in holding the apparatus while observing a displayed picture on a LCD.

The incorporation of a detachable imaging unit with portable electronic device would significantly reduces the cost to the manufacture by postponing the customization of the device until the packaging stage. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the video camera of Isashi in the upper hinge of Kfoury and/or Saburi et al. portable telephone, so as to obtain a portable telephone having a second photographic camera housed in an

axial unit in the longitudinal direction, while observing a displayed picture (Fig. 7A & 7B; Col. 15, line 36-Col. 16, line 65; and Col. 26, line 63-Col. 27, line 8 of Isashi).

As for claims 2 and 10-11, Kfoury teaches a portable terminal, further comprising a built-in battery in the first housing, and a detachable large-capacity battery that can be attached to the first housing in a position formerly occupied by the sub-housing when the sub-housing is removed (Col. 7, lines 58-65 of Kfoury).

As for claims 3 and 13, Kfoury teaches a portable terminal, wherein the hinge housing comprises a center hinge arm at the upper center of the first housing and a pair of side hinge arms protruding from both sides of the hinge housing and combined with the center hinge arm (Abstract; Col. 3, lines 4-51; and Col. 4, line 66-Col. 5, line 45 of Kfoury).

As for claims 5 and 15, Isashi teaches a portable information processing apparatus; which reads on claimed portable terminal or PDA, wherein the lens of the photographic optical system and a lens barrier for selectively covering the lens are arranged at a longitudinal direction; which reads on claimed camera module comprises a camera lens at an end of the camera module and a viewfinder at another end of the camera module (Fig. 7A & 7B; Col. 15, line 36-Col. 16, line 65; Col. 26, line 63-Col. 27, line 8; and Col. 34, lines 22-28 of Isashi).

As for claim 7, Kfoury teaches a portable terminal, wherein the second hinge housing is rotatable about the second hinge axis, with respect to the first housing (Abstract; Col. 3, lines 4-51; and Col. 4, line 66-Col. 5, line 45 of Kfoury).

As for claim 9, Saburi et al. teaches a portable terminal, wherein the camera module is installed along the first hinge axis with the sub-housing mounted to the first housing, and can be positioned at a desired height and angle when the sub-housing is removed from the first housing (Fig. 6 A & B; Col. 3, lines 36-44; and Col. 6, line 34-Col. 8, line 39 Saburi et al.).

As for claim 18, Saburi et al. teaches a portable terminal, wherein the sub-housing further comprises a sound processing section; which reads on claimed microphone, positioned on the outer surface of the sub-housing (Fig. 7:40 and Col. 7, lines 20-28 of Saburi et a.).

As for claim 19, Saburi et al. teaches a portable terminal, wherein the first housing comprises a first connector and the sub-housing further comprises a second connector, for electric connection between the sub-housing and the first housing when the sub-housing is mounted to the first housing (Fig. 6 A & B; Col. 3, lines 36-44; and Col. 6, line 34-Col. 8, line 39 Saburi et al.).

5. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kfoury (US Patent 6549789), Saburi et al. (European Patent Publication 1096771 A1), and Isashi (US Patent 5719799) as applied to claim 1 above, and further in view of Kim (US Patent 6397078).

What Kfoury, Saburi et al., and Isashi do not explicitly teach is a portable terminal, further comprising a touch pen having a protrusion at the top end of the touch pen.

However Kim teaches a portable terminal, further comprising a stencil (Fig. 2:30 & 5:30 of Kim); which reads on claimed touch pen, having a protrusion at the top end of the touch pen, wherein the first housing comprises a hole for receiving the touch pen with the protrusion of the touch pen retained at the entrance of the hole (Col. 2, lines 40-46 and Col. 3, lines 10-20 of Kim)

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch pen, as taught by Kim, in the portable electronic device of Kfoury, because Kfoury already a detachable user interface may be a touch pad (Col. 7, lines 58-65 of Kfoury).

The motivation of the a touch pen incorporated in the portable electronic device combination would allow the user to easily operate the device in PDA mode by using the control buttons and by inputting commands using the stencil via the touch-sensitive screen or touch pad (Col. 3, lines 10-20 of Kim).

6. Claims 6, 12, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kfoury (US Patent 6549789), Saburi et al. (European Patent Publication 1096771 A1), and Isashi (US Patent 5719799) as applied to claim 1 above, and further in view of Ikeuchi (US Patent 2003/0092401).

What Kfoury, Saburi et al., and Isashi do not explicitly teach is a portable terminal, further comprising of a detachable display unit with short-range communication

However as for claims 6 and 16, Ikeuchi teaches a portable terminal, wherein the sub-housing further comprise: a sub-LCD and at least one operation key arranged on

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an edge of the sub-housing (Fig. 8:205; Page 3, Para 0040; and Page 4, Para 0053 of Ikeuchi).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a detachable display unit, as taught by Ikeuchi, in the portable electronic device of Kfoury, because Kfoury already a detachable user interface may be a Braille output device or a display that has very large fonts (Col. 7, lines 49-56 of Kfoury).

The motivation of the a detachable display unit incorporated in the portable electronic device combination would allow the user to separated the upper part and the base of the mobile telephone from each other. This would allow the user to read E-mail messages or desired Internet sites using the smaller and lightweight upper part while the lower terminal body is placed a short distance away. This provides a mobile telephone with more portability (Page 4, Para 0054 of Ikeuchi).

As for claim 12, Ikeuchi teaches a portable terminal, wherein the first housing comprises a first short-range communication module, and the sub-housing further comprises a second short-range communication module, for short-range communication between the first housing and the sub-housing (Page 4, Para 0050 & 0054 of Ikeuchi).

As for claim 17, Ikeuchi teaches a portable terminal, wherein as the sub-housing is removed from the first housing, the short-range communication modules are activated and as the sub-housing is mounted to the first housing, the short-range communication modules are deactivated (Page 4, Para 0050 & 0054 of Ikeuchi).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

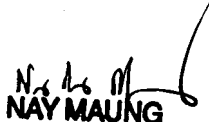
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JNY
April 17, 2007


NAY MAUNG
SUPERVISORY PATENT EXAMINER